

THE LEADING HELIUM PURE PLAY

Delivering high-grade, low-cost helium projects in the United States

Corporate Presentation August 2022

ASX | BNL OTCQB | BSNLF

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The Company has obtained data from water wells (BBB#1, JXSN#1-3, Hill#1-2) drilled and owned by ranchers. These wells are the property of the rancher and the Company does not have an economic interest in them. Water wells are drilled for the purpose of producing water for use by the rancher. Water wells may not produce helium and may not be converted into producing helium wells.

BLUE STAR HELIUM

Prospective Resources			
Net Recoverable Helium (mmcf)	1U (P90)	2U (P50)	3U (P10)
Galactica Prospect	2,131	4,395	6,849
Pegasus Prospect	1,970	3,423	5,092
Argo Prospect	276	2,108	3,065
Enterprise Prospect	372	2,204	5,494
Galileo Prospect	495	1,292	2,329
Total BNL Net Recoverable Helium	5,244	13,422	22,829

Note 1: The estimated quantities of helium that may potentially be recovered by the application of a future development project relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable helium.

Note 2: The resource estimates have been prepared using the probabilistic method and are presented on an unrisked basis. In a probabilistic resource distribution, 1U (P90), 2U (P50), 3U (P10) estimates represent the 90% probability, 50% probability and 10% probability respectively that the quantity recovered will equal or exceed the estimate assuming a success case in the prospect. Resource totals have been arithmetically added.

Notes specifically in relation to Galactica, Pegasus and Argo

Note 3: The estimates of prospective resources in respect of Galactica, Pegasus and Argo prospects are reported as at an evaluation date of 4 June 2021 and are more fully described in the Company's announcement of 10 June 2021. The information in this report relating to prospective resources is based on, and fairly represents, information and supporting documentation prepared by or under the supervision of Trent Spry who is executive director of Blue Star. Mr Spry is a qualified geoscientist with over 20 years of oil and gas industry experience and a member of the American Association of Petroleum Geologists and the Petroleum Exploration Society of Australia. Mr Spry consents to the inclusion of the information in this report relating to helium prospective resources in the form and context in which it appears.

Notes specifically in relation to Enterprise and Galileo

Note 4: The estimates of prospective resources in respect of Enterprise and Galileo prospects are reported as at an evaluation date of 1 November 2020 and are more fully described in the Company's announcement of 16 November 2020. The information in this report relating to prospective resources is based on, and fairly represents, information and supporting documentation prepared by or under the supervision of Trent Spry who is executive director of Blue Star. Mr Spry is a qualified geoscientist with over 20 years of oil and gas industry experience and a member of the American Association of Petroleum Geologists and the Petroleum Exploration Society of Australia. Mr Spry consents to the inclusion of the information in this report relating to helium prospective resources in the form and context in which it appears.

The Board has authorised this announcement to be given to ASX. Security holders and other interested parties can contact Trent Spry, Managing Director and CEO at info@bluestarhelium.com.au

CORPORATE SNAPSHOT

CLEAN CAPITAL STRUCTURE

	and the film
ASX ticker	BNL
OTCQB ticker	BSNLF
Share price (ASX close, 5 Aug 22)	3.3¢
Issued share capital	1,586 M
Options	34 M
Performance rights ¹	81 M
Basic market capitalisation	A\$52 M
Cash (29 Jul 22)	A\$10.8 M

SUPPORTIVE SHAREHOLDER BASE

Board	Contraction of the second seco	4.0 %
Pamplona Group		3.8 %
Hugh Warner		3.1%
Nikola Krkovski		2.9 %
Тор 20	The state of the	37.1%
	4	

As at 29 April 2022

1. For full details of performance rights, including requisite hurdles for vesting, refer to BNL ASX release dated 4 May 2022.

SHARE PRICE PERFORMANCE (ASX: BNL)



EXPERIENCED BOARD AND MANAGEMENT

Ross Warner – Executive Chairman

Lawyer and corporate executive with 15+ years in oil and gas in the United States, UK and Indonesia

Trent Spry – Managing Director & CEO

Experienced geoscientist with 20+ years in oil, gas and helium, exploration, development and new ventures

Neil Rinaldi – Non-Executive Director

Executive leader and finance professional with 20+ years in asset acquisitions and disposals, company structuring and growth strategy

Peter Kondrat – Chief Operating Officer

Extensive helium operating and development experience, including most recently as President/COO of US helium E&P business, Tacitus LLC

Amanda Wilton-Heald – Company Secretary

CA with 20+ years of accounting, auditing and company secretarial (including 0&G exploration), listing and corporate advisory experience

BLUE STAR: LEADING HELIUM PURE PLAY

- Strategic large-scale US land position
- Early-mover in the world's largest helium market
- High grade green helium resource in Las Animas, Colorado, U.S.
- Low cost, high impact exploration and development drilling program
- Recent discovery successes at Galactica/Pegasus and Voyager plus gas on logs at our Enterprise propsect
- Large additional untested exploration portfolio
- Clear commercialisation pathways in under-supplied helium market

SNAPSHOT

4 Helium discoveries	B Prospects in Development Used Sector Secto
	 Outstanding exploration success rate - 4 discovery wells over 3 prospects Helium discoveries at Voyager & Galactica/Pegasus, gas on logs at Enterprise up-dip appraisal BBB#1 - 8.8% helium (Voyager) JXSN#1, 2 and 3 - 1.98% to 3.14% helium (Galactica/Pegasus) Gas on logs at Enterprise (Hill#2 and Enterprise 16-1)
UP-COMING DRILLING &	 Up-coming drilling Serenity maiden well drilling Aug 2022. Three further locations approved pending discovery. Exploratory water wells testing extent pf gas accumulations at Galactica/Pegasus Exploratory water well to test up-dip of gas on logs at Enterprise Permitting Four helium development well locations at Galactica/Pegasus set for approval hearing in Aug 2022. Offsetting JXSN#1, 2 and 3 discoveries with a further 7 currently being reviewed by the COGCC (11 wells in total). More submitted soon Two helium development well locations at Voyager submitted. Three to follow. Offsetting BBB#1 discovery 55 helium exploration and development well permits in process across portfolio
PLAN OF DEVELOPMENT & RESOURCE UPGRADES	 Initiated plan of development and FEED studies for facilities at both Voyager/Enterprise and Galactica/Pegasus/Serenity areas following discoveries Resource upgrades at Galactica/Pegasus and Voyager (maiden) post discoveries. Serenity (maiden) upon success
WELL FUNDED	A\$10.8 million at 30 June 2022 (Appendix 5B)
BLUE STAR HELIUM	

HELIUM: A CRITICAL TECHNOLOGY ENABLER

- High value commodity with high-tech applications
- Continued supply shortage and strong demand growth to persist beyond current supply crisis into medium term
- Helium pricing at historic highs

THE U.S. HELIUM MARKET

DOMESTIC SUPPLY CHALLENGES

- U.S. strategic reserve (BLM) progressively sold-off minimal residual
- Most worldwide He supply is a by-product of hydrocarbon extraction; price inelastic plus climate targets expected to significantly impact on new supply
- Supply critically strained

SURGING DEMAND FROM SEMICONDUCTOR INDUSTRY – DOMESTIC AND OFFSHORE

- Push from U.S. Govt. to dramatically increase domestic semiconductor manufacturing with +US\$50bn investment (security of supply dynamic)
- Semiconductor manufacturers committing to investing +US\$50bn in new fabs in U.S.
- Additional capacity flagged globally from major global semi-conductor players



US helium supply 2011-22 (Bcf)

US BLM US Other

Source: AAAS; US Department of Interior's BLM and Office of Minerals Evaluation, Edison Research, Hannam Partners Research

Current Status:

Helium Shortage – Supply Constrained

Uncertain supply outlook following:

- explosion & fires at Gazprom's Amur gas processing plant - Ukraine war casts doubt on future availability
- BLM storage facility down for unplanned maintenance
- explosion at Kenawa Haven Plant, Kansas
- Algeria stopped processing helium and re-routed gas feedstock to Europe
- reduced production from Qatar due maintenance shutdown

Several helium majors reportedly declared force majeure and now rationing supply to their customers 7

STRONG RECENT PRICE MOMENTUM

Supply shocks and scarcity cause sharp increases in pricing



BLUE STAR HELIUM

* Denotes CFR price
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STRATEGIC, FIRST-MOVER IN LAS ANIMAS

US assets in world's biggest helium market

High-grade, green helium resource

Strategic large scale land position surrounds historic high-grade helium analogues (Model Dome field and Cynthia True discovery)

Excellent proximity to key infrastructure and major consumers

STRATEGICALLY LOCATED ASSETS

- Strategically targeted geology with high concentration helium
- Proximate key infrastructure and downstream helium consumers



STRATEGICALLY LOCATED ASSETS

- High helium grade, proximate key infrastructure and downstream helium purification and consumers
- Local infrastructure currently under utilised
- Within 100-150 miles trucking to purification facilities
- Conveniently located for customers and development scenarios

- Private purification plant
- BLM helium pipeline & storage system
- Ladder Creek helium gathering system
- A Private crude plant
- Existing road access
- Existing CO2 pipelines

Las Animas County Project Area





BLUE STAR'S FLAGSHIP HELIUM PROJECTS

Extensive landholding in premier U.S. helium location

FIRST MOVER IN LAS ANIMAS COUNTY, COLORADO

- Dominant, strategic large-scale land position secured
- Circa 298,381 gross acres leased (215,631 net acres)
- Proven Lyons helium play fairway
 - Historical production at Model Dome (Top 3 He concentrations in U.S.)
 - Recent Blue Star discoveries at Galactica/Pegasus & Voyager
- Cultivated key stakeholder
 relationships



SUBSTANTIAL SHALLOW RESOURCES & DEEPER PLAYS

Across large land position and significant prospect portfolio

LYONS HELIUM PLAY

- 13.4 BCF prospective helium resources currently from 5 prospects
- Additional uncertified prospects including Voyager and Serenity
- Conventional drilling, shallow target depths: 1,000 1,200 ft
- Modest drilling cost of US\$300k per well (dry hole) *
- Highly attractive helium concentrations
 - Historic Model Dome analogue helium: 8%
 - Historic Cynthia True discovery helium: 8.8%
 - Galactica/Pegasus discoveries helium: ~2-3%
 - Voyager discovery helium: 8.8%

LEVIATHAN PROJECT (Deeper Play Concepts/Secondary Targets)

- Catherine Mock#1 helium: 2.2% at 2,390ft in the deeper Pennsylvanian
- Las Animas formation contains potential additional helium source, reservoirs and sealing units
- Potential for fractured basement source play
- Similar aged proven plays in the Anadarko Basin and helium bearing on the Las Animas Arch to the north

BLUE STAR HELIUM

*Planned log evaluation and well testing program upon helium discovery

Net Recoverable Helium (mmcf)	1U (P90)	2U (P50)	3U (P10)
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BLUE STAR

VOYAGER

Discovery, appraisal and development permitting

Discovery

- BBB#1 well discovery in December 2021: calculated air-free gas concentration of 8.8% helium in a 134 ft gas column discovered in the Lyons formation at Voyager prospect
 - Similar gas composition to the historic Model Dome analogue production and one of the highest in-situ helium concentrations both in the U.S. and globally
 - The average gas column height for wells in the historic Model Dome field is approximately
 50 ft, making the column height at Voyager of 134 ft very significant

Development planning

- SIGIT appointed to prepare plan of development to include Front-End Engineering and Design (FEED) for an initial processing facility at the Voyager prospect expected completion during Q3 2022.
- Sproule appointed to prepare the Company's first independent helium resource assessment for Voyager with expected completion during Q3 2022.
- Applications for permits to drill the initial two Voyager appraisal and development wells submitted offsetting discovery well with three to follow shortly thereafter and additional locations being evaluated.

VOYAGER PROSPECT

Appraisal and development





BLUE STAR

GALACTICA & PEGASUS

Helium discovered at Galactica/Pegasus prospects

Exploration Success

Helium discoveries in JXSN#1, JXSN#2 and JXSN#3 in May 2022

Key parameter	JXSN#1	JXSN#2	JXSN#3
Helium concentration (%)	1.98	3.14	2.1
Gas column in Lyons formation (ft)	217.5	101+	230
Net pay in Lyons formation (ft)	143.5	101	153.5
Stabilized initial flow rate (mcfd)	412	202	412

- Discoveries confirm historical well log interpreted gas columns in Denton B#1 and Colorado #B-1
- Resulting in 5 wells now showing gas defining the Galactica and Pegasus prospects

Forward Exploration & Development Program

- Four helium well locations at Galactica/Pegasus set for approval hearing Aug 2022 follow up appraisal and development of recent discoveries
- 29 helium wells for Galactica/Pegasus currently in various stages of the permitting pipeline
- SIGIT engaged to prepare plan of development and FEED for the area
- Sproule engaged to undertake update of the Galactica/Pegasus resource; at least contingent resources expected

GALACTICA PROSPECT

Helium discovered and confirmed in offset well – offset development wells set for approval



PEGASUS PROSPECT

Helium discovered and confirmed in offset well – offset development wells set for approval





SERENITY Structural high up dip from gas in Lyons reservoir sweet-spot

Drilling Aug 2022

- First well (Sammons 315310C) in Blue Star-Vecta AMI (Blue Star 50% WI) over the Serenity prospect commenced drilling in August
- 3 appraisal/development well locations already approved to follow-up successful initial well.
- The initial well is targeting an interpreted structural high, up-dip from the State #3053-36-4 (State #3053) well where gas has been interpreted on historically run wireline logs.
- The State #3053 well also highlights that the Lyons formation in this location is significantly thick with high net quality sand.
- Drilling and evaluation of this well is expected to cost less than US\$150,000, net to Blue Star.

SERENITY PROSPECT

Structural high up-dip from interpreted gas in Lyons target – Maiden well Aug 2022





ENTERPRISE

Discovered gas on logs in two wells

Results so far

- Hill#2: 29 ft gas column in the highquality Lyons formation interpreted on wireline logs
- Enterprise 16-1 (drilled Feb 2022), 13 ft gas column in the high-quality Lyons formation interpreted on wireline logs
- Forward Plan:
 - Exploratory water well located 1.3 miles southeast to test gas up-dip in Lyons formation.
 - Follow-up helium appraisal and development well locations being evaluated ahead of success.



ACTIVITY SUMMARY

Western and Eastern Development Areas



HIGH-RETURN COMMERCIALISATION PATHWAY

Scalable, modular growth concept to market



MOVING TO FIRST HELIUM

Evaluation and commercialisation timetable

Q3 2022

- Drill initial AMI well (Sammons)
- Permit approval for 4 wells
- Drill 4 wells
- Voyager resource update
- Galactica/Pegasus resource update
- Defined commercialisation route

H1 2023

- Drill 5 wells
- Further development and exploration well drilling
- Commission Stage 1 production facility (Q2 2023)

Q2 2022

- 3 wells drilled
- Additional permits initiated
- Initiate plan of development and FEED
- Initiate Voyager resource update

Q4 2022

- Permit approval for 4 wells
- Drill 4 wells
- Drill potential additional AMI wells

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BLUE STAR: THE LEADING HELIUM PURE PLAY

- Outstanding exploration success to date
- Geologic and economic uncertainty significantly reduced by recent exploration results
- Recent discovery successes at Galactica/Pegasus and Voyager plus gas on logs at Enterprise to be tested
- Up coming operations: maiden well at Serenity, Enterprise up-dip drilling, further appraisal drilling at Galactica, Pegasus
- Follow up development wells being permitted offset recent discoveries
- Upgrading current resources post discoveries and growing resource base
- Plan of development including FEED initiated



APPENDICES



THE LEADING HELIUM PURE PLAY

Premier quality development asset opportunity

	BLUE STAR HELIUM		RENERGEN	HeliumOne	avanti energy		GRANDGULF	neble
Company	Blue Star Helium	Desert Mountain Energy	Renergen	Helium One Global	Avanti Energy	Royal Helium	Grand Gulf Energy	Noble Helium
Listing	ASX: BNL OTCQB: BSNLF	TSXV: DME	JSE: REN; ASX: RLT	AIM: HE1	TSXV: AVN	TSXV: RHC	ASX: GGE OTCQB:GRGUF	ASX: NHE
Asset domicile	U.S.	U.S.	South Africa	Tanzania	U.S. & Canada	Canada	U.S.	Tanzania
Provincial location	Colorado	Arizona	Free State	Songwe Region	Montana; Alberta and Saskatchewan	Saskatchewan	Utah	Manyara & Rukwa Regions
Market capitalisation (US\$M)	\$31M	\$135M	\$275M	\$57M	\$50M	\$57M	\$25M	\$20M
Net acreage held	215,345	+85,000	462,000	1,115,000	~132,000	+1,000,000	29,000	~970,000
Net prospective He resource (Bcf, 2U)	13.4	-	32.3	138	-	-	20.8	101
Helium concentration (% He)	2 - 8 %	4 - 7%	3 – 12%	NA	1-2%	1-2%	NA	4 - 10%
Evaluation stage	E&D	E&D	E&D	Exploration	Exploration	Exploration	Exploration	Exploration

HELIUM: A CRITICAL TECHNOLOGY ENABLER

High value commodity with high-tech applications

Continued supply shortage and strong demand growth to persist beyond current crisis into medium term Helium pricing at historic highs

UNIQUE, RARE AND HIGHLY VALUED

A unique set of physical and chemical properties

- Non-toxic, non-flammable, low-density gas
- Chemically and radiologically inert
- Ultra-cold boiling point (-269°C), stays liquid at absolute zero
- High thermal conductivity
- Lighter than air
- Small (leak detection)

Finite, irreplaceable and rare on Earth

- Makes up only 0.0005% of Earth's atmosphere
- Light enough to escape Earth's gravitational pull into space
- Accumulates in commercial quantities in sealed subsurface reservoirs
- Unable to be manufactured artificially
 - No substitute in key applications

HELIUM DEMAND

An enabler of innovation, helium is essential for key existing and future technology development

Estimated market size in 2025

US\$18.2 B

Forecast 2021-25 CAGR: 11.2% p.a.

Source: ResearchAndMarkets

BLUE STAR HELIUM

Global share of helium applications



A diversified, deep market with increasing demand driven by medicine, consumer electronics and technological advancement



CURRENT HELIUM USES

Aerospace/aircraft

Space flight

NASA (and private space organisations) uses helium as an inert purge gas for hydrogen systems and a pressurizing agent for ground and flight fluid systems. Helium is also used throughout the agency as a cryogenic agent for cooling various materials and in precision welding applications.

Controlled atmosphere

Helium's use as an inert, non-toxic gas makes it ideal in controlled atmosphere environments.

Healthcare

Heliox breathing mixtures

Helium in breathing mixtures assists with breathing and improves oxygenation in medicine and diving. Potentially reducing inflammation for COVID-19 patients with acute respiratory distress syndrome.

Magnetic Resonance Imaging (6% annual growth) MRI technology is essential in modern medicine. The superconductive magnets inside MRI machines reach extreme temperatures and rely on helium for cooling. A single MRI machine uses 700 litres of helium per year.

Electronics/semiconductors

Fibre optics

Used in the manufacturing process and for cooling systems during use. High speed networks such as the internet rely on helium.

LCD panels

Helium is essential in the manufacture of LCD panels to cool the glass and to etch internal components.

Hard disk technology

The use of helium in hard disk drives reduces friction between disk platters, increasing speed, longevity and storage potential.

Lithium batteries

Helium is used in the quality assurance process of lithium battery manufacturing, to test every battery for leakage.

Advanced science

Quantum computing

Helium exists in liquid form at temperatures below - 269C (4K); this enables its use as the ideal coolant for quantum computing research.

Research / Large Hadron Collider

Helium has been essential to numerous Nobel Laureates and their advanced research; more than 5,200 patents relying on liquid helium have been awarded since 1975 in the U.S. alone.

Defence

High-end thermographic cameras

Used as a coolant in thermographic quantum detectors.

Missile propulsion systems A purge gas and fuel pressurising agent.

Submarine detection

Liquid helium is used to clean noisy sound signals.

Renewables/low carbon tech

Energy/Transport

Essential in nuclear fusion and ideal for nuclear fission cooling

Small modular nuclear reactors (SMRs)

High speed Mag-Lev transport

Lithium-ion battery testing and quality assurance

Helium is a modern technology enabler

MAJOR GLOBAL HELIUM SUPPLY SOURCES

Most helium production is a by-product output of hydrocarbon extraction

Asset	Owner	Domicile	He output (Bcf p.a.)	He concentration (% He in raw gas)	Notes
Ras Laffan	RasGas	Qatar	2.0	0.2%	Primarily LNG output
La Barge	Exxon	U.S.	1.5	0.7%	Primarily CO ₂ output
Algeria LNG	Various	Algeria	0.4	0.2%	Primarily LNG output
Hugoton	Various	U.S.	0.4	0.6%	Primarily natural gas output (approaching depletion)
US Strategic Reserve	BLM	U.S.	0.4	1%	Secondary He supply (approaching depletion)
Concho Dome	Petrosun	U.S.	0.2	4%	Primary He supply
Doe Canyon	Air Liquide	U.S.	0.2	0.4%	Primarily natural gas output
Bayu-Undan	Various	Australia	0.2	0.3%	Primarily LNG output
Dineh Bi Keyah (DBK)	Nasco AG	U.S.	0.2	5%	Primary He supply
Tocito Dome	Tacitus	U.S.	0.1	7%	Primary He supply
Orenburg	Gazprom	Russia	0.1	0.5%	Primarily natural gas output (domestic supply only)
Odalonow	PGNiG	Poland	0.1	0.5%	Primary He supply
Lisbon	Paradox Resources	U.S.	0.1	1%	Primarily natural gas output

- Primary He supply comprises only approx. 10% of global market supply

- Increasing pressure on companies to decarbonise themselves and their supply chains

- Growing attraction of primary helium sources vs hydrocarbon extraction by-products

- Blue Star ideally positioned to capitalise

BLUE STAR HELIUM

Primarily Hydrocarbon

Primarily CO₂

Primarv He

Legend

HIGH-GRADE HELIUM

Globally attractive helium concentration levels

Helium Concentration (% He) and Output (Bcf pa) of Major Global Production Fields



MARKETING BLUE STAR HELIUM

Right in the centre of the world's biggest helium market

TARGETING PREMIUM SUPPLIER STATUS

- Helium marketing study completed
- Within trucking distance to established liquefaction plants with significant available capacity
- Direct gas sales opportunities as well as long term contract options
- Relationships established with potential offtake parties and end-users
- Excellent timing as new entrant major evolution underway in U.S. helium market
- Transformational market opportunity
 - Market is severely supply constrained
 - Gazprom's Amur facility delayed by explosion and fire
 - US Federal Helium Reserve sold but deliveries delayed due facility shutdown for unplanned maintenance
 - US facility at Cliffside shutdown in first half 2022 for maintenance
 - Supplies and facilities sold as part of Helium Stewardship Act of 2013
 - Qatar facility down for planned maintenance
 - Explosion at Kenawa Haven Plant, Kansas
 - Algeria stopped processing helium and re-routed gas feedstock to Europe

BLUE STAR: A LOCAL PARTNER AND SUPPLIER OF CHOICE

A highly engaged, holistic stakeholder approach,

STRONG ESG CREDENTIALS

- Preparing Environment, Social and Governance (ESG) roadmap to guide the business as it grows
 - aim to become a leading supplier of helium utilising a best practice approach to management of ESG risks and opportunities.
 - Stakeholder engagement process guided by PwC.
- Green helium natural raw gas composition advantages
 - Effectively zero hydrocarbon (methane) content
- Delivers strong, structural environmental competitive advantage
- Planned long-term sale of CO₂ by-product for use by food industry (dominant consumer) and/or sequestered for tax credits (Section 45Q of the US Tax Code)
- Evaluating significant renewable power penetration potential for helium production facility
- Well established, deep landowner and local community relationships
 - Funding drilling of water wells for local ranchers
 - Minimising surface disturbance
 - Positive relationships with nature and industry conservancy groups
 - Preferencing of local commercial engagement and supplies sourcing

SUBSTANTIAL SHALLOW RESOURCES & DEEPER PLAYS



SUBSTANTIAL SHALLOW RESOURCES & DEEPER PLAYS



GLOSSARY AND UNITS

Term	Description
1U (P90), 2U (P50) and 3U (P10)	In a probabilistic resource distribution, 1U (P90), 2U (P50), 3U (P10) estimates represent the 90% probability, 50% probability and 10% probability respectively that the quantity recovered will equal or exceed the estimate assuming a success case in the prospect
gross acres and net acres	The minerals in a tract of land may be owned by one or more owners. Each owner may lease its respective percentage share of the minerals. The gross area of the tract of land is referred to as the "gross acres" of a lease. The "net acres" refers to the lessor's percentage share of the gross acres.
lead	A project associated with a potential accumulation that is currently poorly defined and requires more data acquisition and/or evaluation to be classified as a Prospect. A project maturity sub-class of Prospective Resources.
net revenue interest or NRI	A share of production after all burdens, such as royalty and overriding royalty, have been deducted from the working interest. It is the percentage of production that each party actually receives.
oil and gas lease	An agreement between a mineral owner (lessor) and an oil and gas company (lessee) permitting the lessee to explore, drill and produce oil and gas from the tract of property. Typically, the lease provides that lessee will pay a Royalty to the lessor. Also referred to as a "mineral lease" or a "lease".
operator	The owner of the right to drill or produce a well, or the entity contractually charged with drilling of a test well and production of subsequent wells.
overriding royalty	A percentage share of production, or the value derived from production, which is free of all costs of drilling and producing, and is created by the lessee or working interest owner and paid by the lessee or working interest owner.
PRMS	The Petroleum Resources Management System of the Society of Petroleum Engineers, World Petroleum Council, American Association of Petroleum Geologists and Society of Petroleum Evaluation Engineers as revised in June 2018.
prospect	A project associated with an undrilled potential accumulation that is sufficiently well defined to represent a viable drilling target. A project maturity sub-class of Prospective Resources.
royalty	A percentage share of production, or the value derived from that production, paid from a producing well.
working interest or WI	A percentage of ownership in an Oil and Gas Lease. Working Interest owners are obliged to pay a corresponding percentage of the cost of leasing, drilling and producing and operating a well or unit. After payment of Royalties, the working interest also entitles its owner to a share in production revenues with other working interest owners, based on the percentage of working interest owned.

Unit	Measure	Unit	Measure
В	Prefix - billions	Bcf	billion cubic feet
mm	Prefix - millions	mmcf	million cubic feet
m	Prefix - thousands	mcf	thousand cubic feet
/d	Suffix - per day		

DATA SOURCES

Slide	Description	Source				
		Currency conversion rates: CADUSD 0.78; AUDUSD 0.70; GBPUSD 1.22 (1 Aug 2022)				
		Desert Mountain Energy – Investor Presentation, 12 January 2022				
	Grand Gulf Energy - March 22 Quarterly Activities and Cash Flow Report, 29 April 2022					
		Blue Star Energy – Investor Presentation, May 2022, Activities Report Quarter Ended 31 March 2022, 29 April 2022				
Slide 26	Peer Comparative Table	Renergen Ltd - Prospective Resource Evaluation, July 2020; Annual Report to Shareholders, 20 May 2022				
		Royal Helium – Investor Presentation, May 2022				
		Helium One – Investor Presentation, March 2022				
		Avanti Energy - Investor Presentation, March 2022; Avanti Energy Acquires 63,000 acres of helium exploration permits in SW Saskatchewan, 3 May 2022				
		Noble Helium – Investor Presentation, April 2022				
Slide 7	The U.S. Helium Market	 https://www.reuters.com/technology/exclusive-tsmc-looks-double-down-us-chip-factories-talks-europe-falter-2021-05-14/ https://www.anandtech.com/show/16483/samsung-in-the-usa-a-17-billion-usd-fab-by-late-2023 https://www.forbes.com/sites/timbajarin/2021/03/23/intel-to-launch-two-new-fabs-in-arizona-and-why-this-is-important/?sh=54232a5247bb https://www.industryweek.com/technology-and-iiot/information-technology/article/21170068/globalfoundries-announces-new-semiconductorfab-in-new-york 				
Slide 34	Major Global Helium Supply Sources	Edison Research, 'Helium – Macro View Update Update' , February 2019; 'Global helium market update' , May 2021; Hannam & Partners Equity Research, 'Helium, a super cool commodity', 14 December 2020;				
Slide 35	High-grade Helium	Hannam & Partners Equity Research, 'Helium, a super cool commodity', 14 December 2020; Edison Research, "Global helium market update", May 2021				

MINERAL RIGHTS IN THE UNITED STATES

- The system of mineral ownership and development in the USA is substantially different to the system in Australia. The following is a general description of the system that commonly applies in the oil and gas producing states. It is important to note that local variations may apply.
- 2. The owner of land owns the surface and all oil, gas and other minerals beneath his/her tract, unless a severance has occurred that creates two distinct estates: the surface estate and the mineral estate. A severance of the mineral estate results from a conveyance or reservation of all, or a portion, of the oil, gas and other minerals in and to a specific tract.
- 3. The oil, gas and other minerals beneath a tract of land are a part of the realty until produced and become personal property when brought to the surface. Because the mineral estate is considered real property, it may be acquired, divested, encumbered, devised and inherited, thereby resulting in the possibility that an unlimited number of persons ("mineral owners") may own undivided interests in a tract's minerals.
- 4. Accordingly, the mineral estate in a tract may be owned by one or more distinct owners and each distinct owner may comprise one or more persons. The mineral estate may be divided amongst distinct owners by depth or geological formation. Where there is more than one distinct owner of a mineral estate, each such owner will own a percentage share of that mineral estate. The percentage shares of that mineral estate need not be equal. Therefore, each such distinct owner owns its percentage share of an undivided share in the mineral estate in that tract. In addition, private individuals may own the mineral rights directly beneath public surface owners or users, eg the mineral rights beneath a public road. This is commonly summarised by referring to the lessor's "net acreage" in a tract. This means the lessor's percentage share of the undivided total area of the tract's minerals ("gross acres") net of the percentage share of other mineral owners in the same tract. For example, assume the mineral rights in a tract of 100 acres are owned by 4 mineral owners in equal shares. If one of those mineral owners leases its mineral

interests to a lessee, the lessee will have an interest in 100 gross acres and 25 net acres. If a second mineral owner leases its mineral interests to the same lessee, the lessee will then have an interest in 100 gross acres and 50 net acres.

- 5. If an owner of a mineral estate, whether severed or intact with the surface, chooses to pursue development of and production from the minerals beneath the ground, such owner may exercise its rights and may generate revenue through one or more of these methods: (1) the "right to develop" the mineral estate by contracting directly with a drilling and operating company and directly selling the minerals; (2) the "right to lease" the mineral estate to a third party, specifying the terms of the lease and defining the minerals that may be produced; (3) the "right to receive a bonus payment" for leasing the mineral estate, usually calculated per acre, from the lessee for leasing the mineral estate; (4) the "right to receive delay rentals" when the mineral estate is leased but not being produced: and (5) the "right to receive royalty payments" based on a percentage of minerals produced by the lessee. Given the inherent risk, cost of development and required technology to produce oil and gas, most mineral owners do not independently develop their minerals, and as a result, rely on their ability to lease to a third party.
- 5. The oil and gas lease serves as both a conveyance and a contract which establishes the parties' rights and obligations. There is no "standard form" of lease. The details within the lease are the contract which defines the rights and obligations of the parties.
- 7. An oil and gas lease creates rights in relation to the mineral estate only and does not grant surface rights to the lessee. Surface rights must be negotiated separately with the surface right owners. This process is facilitated by legislation.
- 8. The execution of an oil and gas lease that reserves a royalty to the lessor creates the leasehold estate and a royalty interest. The lessee acquires the working interest, or the cost bearing interest, which provides the lessee the right to develop the oil and gas the subject of the lease at its sole risk and expense (`working interest')

or "WI"). The lessee may keep and sell its proportionate share of the oil and gas produced from the lease until the lease expires ('net revenue interest" or "NRI"). The NRI is the lessee's share of production derived from the lease after royalties and other burdens. The leasehold estate created by the oil and gas lease may be conveyed, assigned and encumbered similar to any other real estate, and it is common for the original lessee to assign undivided working interests to numerous parties, who share the burden of costs in developing the mineral estate. Generally, a lease will include a provision that allows the lessee to continue to produce the lease as long as it is economically producing a minimum amount of oil and gas. Such a lease is said to be "held by production" or "HBP".

- D. The identity of the mineral ownership in respect of any tract may not be maintained in any single definitive register. The landman establishes the title of the mineral owner by ascertaining the chain of transfers from the original date of grant to the present day. It is customary before drilling a well on a leased property to obtain a drilling title opinion, by which the lessor(s) in question are determined to have the required authority to grant the right to explore, exploit and to assign the minerals in a specific tract of land based on a thorough examination of the chain of title. If errors are found in the course of that examination, it is customary for the lessor and lessee to conduct "Title Curative," which involves, but is not limited to, executing instruments, affidavits, conveyances and filing previously unrecorded documents to resolve any disputes, ambiguities or errors so that the operator has substantial support for its claims prior to undertaking the expense of drilling.
- 10. All of the major US oil and gas producing states other than California and Kansas have adopted some kind of mandatory pooling scheme to facilitate the development of oil and gas resources owned by more than one stakeholder. These rules provide a process to compel all mineral estate owners in a drilling area to contribute or pool their mineral estate to the drilling of a well in relation to that mineral estate.